Department of Energy
Washington, DC 20585

FEB 1 2 2009

MEMORANDUM FOR KAREN BOARDMAN
CHAIRPERSON
FEDERAL TECHNICAL CAPABILITY PANEL

FROM: DAE Y. CHUNG
DEPUTY ASSISTANT SECRETARY FOR
SAFETY MANAGEMENT AND OPERATIONS
ENVIRONMENTAL MANAGEMENT

SUBJECT: Annual Workforce Analysis and Staffing Plan Report for Environmental Management Headquarters

The Office of Environmental Management (EM) performed a technical workforce analysis per DOE M 426.1-1A and your memorandum of November 17, 2008, "Annual Workforce and Staffing Plan Report for Calendar Year 2008." A summary report is attached for Federal Technical Capability Panel (FTCP) review and incorporation into the FTCP Annual Report to the Secretary of Energy.

If you have any questions, please call me, the EM FTCP Agent, at (202) 586-5151.

Attachment

cc:
Robert McMorland, HS-1.1
Dae Chung, EM-60

Annual Workforce Analysis and Staffing Plan Report
As of December 31, 2008
Reporting Office EM Headquarters

Section One: Current Mission(s) of the Organization and Potential Changes

The Office of Environmental Management (EM) Headquarters (HQ) mission is to provide high-level policy and direction, as well as oversight of the accelerated risk reduction and cleanup of the environmental legacy resulting from the nation's nuclear weapons program and government-sponsored nuclear energy research. The program is one of the largest and most diverse and technically complex environmental cleanup programs in the world, including responsibility for the cleanup of 108 sites across the country, of which 86 have been completed. Included in that responsibility is the need to safely disposition large volumes of nuclear wastes, safeguard materials that could be used in nuclear weapons, and deactivate and decommission facilities no longer needed to support the Department's mission.

The types and magnitude of technical capabilities currently needed for safe operations include responsibility to oversee environmental cleanup of 1,356 nuclear and radiological facilities (436 completed), 3619 industrial facilities 1505 completed), and new construction of major radiochemical facilities such as the Waste Treatment Plant at Hanford, the DUF6 facilities at Portsmouth/Paducah, Salt Waste Processing Facility at SRS, and the Sodium Bearing Waste Facility at INL. Although EM Headquarters does not operate facilities directly, the organization has responsibility for certain review and approval functions that require in-depth technical knowledge and experience. Examples include review and approval of some safety authorization basis documents, leading and serving on independent assessments of safety and quality assurance, and serving as document managers for National Environment Policy Act documents.

The primary factor driving the technical staffing needs in the year ahead is maturing an independent quality assurance program at EM HQ started in FY2008.

Section Two: Technical Staffing

EM Headquarters does not have any fixed set of facilities. The responsibilities requiring technical staffing vary from year to year depending upon authorities delegated to field managers or retained at the Headquarters level, as well as changes in project makeup requiring oversight. In most cases the field element is expected to fully staff all oversight functions but EM HQ performs its own independent oversight of facilities counted in the following table, per the requirements of DOE O 226.1A, *Implementation of Department of Energy Oversight Policy*. Additionally, in early FY 2009 EM established a Technical Authority function to provide review and guidance regarding project related actions that require DOE-EM corporate approval within the critical decision process.

Section Two – Site Characteristics Table

Number of Hazard Category 1, 2, or 3 Nuclear Facilities:

HC 1 __N/A__

HC 2 _N/A[1]_

HC 3 _N/A[1]_

Number of Radiological Facilities: _____0_____

Number of High or Moderate Hazard Non-Nuclear Facilities: _____0_____

Number of Low Hazard Non-Nuclear Facilities: _____0_____

Number of Documented Safety Analyses: ____0[2]_____

Number of Safety Systems: _____0_____

Number of Site Contractor FTEs: _____0_____

Number of Federal Office FTEs: **313 (Excludes personnel at small sites reported through CBC)**

[1] EM provides some oversight of all EM facilities in accordance with DOE O 226.1A
[2] EM has retained DSA authorities for the following sites: BNL, CBFO, SPRU, WVDP, PPPO
NOTE: PPPO is limited to DUF6 facilities as of 12/2008

Section 2 - Technical Staffing Summary Table

TECHNICAL CAPABILITY	For All Facilities		COMMENTS
	Number of FTEs Needed	Number of FTEs Onboard	
Senior Technical Safety Managers	36	31	
Safety System Oversight Personnel	0	0	No VSS at HQ
Facility Representatives	0	0	
Other Technical Capabilities:	-	-	
Aviation Safety Manager	0	0	MA covers HQ
Aviation Safety Officer	0	0	MA covers HQ
Chemical Processing	1	1	
Civil/Structural Engineering	1	0	
Construction Mgmt	7	3	
Criticality Safety	2.5	1	Includes intern for succession
Deactivation and Decommissioning	5	4	
Electrical Systems	0.5	0.5	Combined with Instrumentation & Control
Emergency Management	1	1	
Environmental Compliance	1	0	
Environmental Restoration	1	1	
Facility Maintenance Mgmt	5	5	
Fire Protection Engineering	3.5	1	Includes intern for succession
Industrial Hygiene	1	1	
Instrumentation and Control	0.5	0.5	Combined with Electrical Systems
Mechanical Systems	1	0	
Nuclear Explosive Safety	0	0	
Nuclear Safety Specialist	4	3	
Occupational Safety	4	3	
Quality Assurance	4	3	
Radiation Protection	2	1	
Safeguards and Security	5	4	
Safety Software Quality Assurance	0	0	
Technical Program Manager	5	3	
Technical Training	1	1	
Transportation & Traffic Mgmt	9	8	
Waste Management	5	4	

Section Three: Current shortages and plans for filling them

The analysis indicates current shortages of one or more technical personnel in sixteen areas: Senior Technical Safety Managers, civil/structural, construction management, criticality safety, deactivation & decommissioning, electrical systems (instrumental & control), environmental compliance, fire protection engineering, mechanical systems, nuclear safety specialist, occupational safety, quality assurance, radiation protection, safeguards & security, technical program manager, and waste management. All positions are at least partially related to defense nuclear facilities. These needs are currently being met by employees detailed from field elements including members of the EM Professional Development Corps, by temporary assignment of HQ staff with other responsibilities, or by support contractors. Temporary assignments, details and support contractors will continue to be used for gaps of less than one FTE.

Section Four: Projected shortage/surplus over next five years

With an average age exceeding 50 years, many workers are already eligible for or approaching retirement. Unfortunately, most of the technical experts are in this group, which could adversely impact the skill mix. Departures accelerated in the last year, exceeding new hires in the technical disciplines. The pool of skilled nuclear industry technical experts is rapidly declining in the United States. As a result, vacancies in the DOE complex are often filled at the expense of other DOE sites. For succession planning, approximately 20 entry level interns are to be recruited through the EM Professional Development Corps during 2009. In addition, EM has begun recruiting mid-grade technical staff. EM's current acquisition strategy away from the traditional M&O concept to multiple smaller contractors is resulting in the need for expanded Federal technical oversight activity. As EM completes its cleanup mission, associated federal workforce requirements will correspondingly decrease. EM's management challenge is to hire and retain capable federal employees in a program that will experience decreasing federal resources. The training budget has been increased to help transition the existing workforce into vacancies created through departures or to develop new skills.

Section Five: General comments or recommendations related to the Technical Staffing

None at this time.